

New personnel must be trained in the proper use and maintenance of the equipment and demonstrate proficiency prior to use. If using human tissue, microtome/cryostat users are required to attend [BSL-2 Enhanced Work Practices](#) and [Bloodborne Pathogen training](#) provided by Yale University EHS. Users shall also attend [Laboratory Chemical Safety training](#) due to the fixatives and dyes used in histology.

Before Use

- Familiarize yourself with the equipment's user manual, noting specific safety features.
- Decontaminate equipment on a regular schedule using an appropriate disinfectant (70% ethanol or 10% bleach solution).
- Use engineering controls such as forceps when removing or changing the blade and to dislodge stuck blocks.
- For microtomes, do not move or transport with knife in position.
- Review the [Safe Sharps Products Ordering Information](#).

During Use

- Always keep hands away from blades.
- Use extreme caution when aligning blocks as the blocks may be close to the blades. If available, make sure block holder is in locked position when loading/aligning blocks.
- Use knife edge protectors/guards. Do not leave knife edges that may extend beyond microtome knife holder unprotected.
- Wear appropriate PPE such as a lab coat or gown, mask, safety glasses or goggles, surgical grade Kevlar gloves that provide dexterity and cut protection, and exam-style gloves to protect against biohazards.
- Avoid freezing propellants that are under pressure as they may cause splattering or droplets of infectious materials.
- For microtomes, keep blocks wet to minimize airborne shavings during slicing.



Work Completion

- Decontaminate equipment with 70% ethanol or 10% bleach solution after work is completed and on a regular schedule.
- Remove blade prior to removing samples.
- Use brushes to clean/brush equipment.
- Consider trimmings and sections of tissue as contaminated and discard appropriately.
- Do not leave motorized microtomes running unattended.

Equipment that is damaged or non-functioning should be reported immediately to the equipment owner, principal investigator, or department head.

Injuries resulting from the use of a cryostat/microtome should be treated immediately. Notify your supervisor, if available, and seek medical evaluation.

Notify EHS at 203-785-3555.